

ABSTRACT

A split leaf filter includes a filter shell having disposed therein a sluice manifold, at least one outlet manifold, a vibrator bar, and an array of parallel spaced split leaf assemblies. Each split leaf assembly has at least two split leaf elements arranged in coplanar adjacent relationship (twin split leaf design), and in some designs there may be three or more coplanar split leaf elements per split leaf assembly (multiple split leaf design). Each split leaf element has a first edge section connected to one of the outlet manifolds, and a second edge section that is generally parallel to the first edge section and connected to the vibrator bar. Each split leaf element also has third and fourth edge sections that are generally perpendicular to the first and second edge sections. In twin split leaf designs, the third edge section is longitudinally interconnected with corresponding edge sections of split leaf elements in a set or section of adjacent split leaf assemblies. Each such set or section represents fewer than all of the split leaf assemblies disposed in the split leaf filter. The fourth edge section is arranged in adjacent parallel relationship along the substantial entirety thereof with a corresponding edge section of another split leaf element of the same split leaf assembly. The outermost split leaf elements of multiple split leaf designs also have this edge configuration. For interior split leaf elements of multiple split leaf designs, both the third and fourth edge sections are arranged in adjacent parallel relationship along the substantial entirety thereof with a corresponding edge section of another split leaf element of the same split leaf assembly.